

Investigation Report

Department of Health

Clean Water Branch

ID #: PA0991C

Date of investigation: 1/6/2011

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Permit/File/WQC No: R50A533

Island: Oahu

Facility: Waste Management Hawaii/CCH

Complaint/Background Description:

On January 6, 2011, the Department of Health (DOH), Clean Water Branch (CWB), attended a tour of the City and County of Honolulu (CCH) Waimanalo Gulch municipal solid waste landfill (Landfill) which is located at 92-460 Farrington Highway, Kapolei, Hawaii. The tour was conducted by the City and County of Honolulu (CCH) and Waste Management Hawaii. Matthew Kurano, Jose Ruiz, Steve Change, Stuart Yamada, and Gary Gill represented the Department of Health. Jesse Frey, Justin Lottig, and Joe Whelan represented Waste Management Hawaii. Multiple staff members from the CCH Refuse Division were present. CCH representatives included Wayne Hamada, Refuse Engineer, and Wilma Namumart, Assistant Chief of the CCH Refuse Division. The purpose of the tour was to give DOH administration a tour of the site.

Permit History

The CCH, Refuse Division, owns the Landfill and has National Pollutant Discharge Elimination System (NPDES) permit coverage through a general permit authorizing the discharge of storm water associated with industrial activities from the Landfill to State waters. The Landfill's Notice of General Permit Coverage (NGPC), File No. HI R50A533, only authorizes the discharge of storm water discharges associated with industrial activities that will not cause or contribute to a violation of applicable State water quality standards and comply with permit effluent limitations. Discharges of effluent, leachate, or other wastewater discharges are not permitted by the issued NGPC.

The NGPC, File No. HI R50A533, was effective as of August 30, 2010, and expires on October 21, 2012.

Findings Description:

The weather was mostly sunny throughout the inspection. The following findings were either observed or noted before, during or after the inspection:

1) Prior to conducting the tour of the Landfill, J. Whelan conducted a briefing regarding the status of the Landfill. J. Whelan stated that the Landfill was being expanded. J. Whelan stated that as part of the Landfill expansion, Waste Management Hawaii was in the process of building a headwall and storm water diversion system (Photograph 2) located above the E6 cell. J. Whelan stated that the headwall was approximately three (3) weeks from completion when the December 19, 2010 rain event occurred. J. Whelan stated that the Landfill had experienced heavy rainfall on the morning of December 19, 2010 which resulted in the Landfill's E6 cell (Photograph 1) being flooded by storm water run-on. J. Whelan stated that the storm water run-on filled the E6 cell and an area immediately south of the E6 cell. J. Whelan stated that had the headwall been completed, storm water would have been diverted around the E6 cell (Photograph 2) to the Landfill's detention basin located on the south side of the Landfill.

2) During the inspection conducted on December 23, 2010 (Investigation Report ID#s PA0991 and 0991A), J. Lottig had indicated to CWB representatives that a 36 inch subsurface pipe located under the E6 cell was designed to divert storm water run-on to prevent the flooding of the E6 cell in the event of a storm. At the tour conducted on January 6, 2011, J. Whelan stated that in its current configuration, the Landfill was not able to divert storm water run-on around the E6 cell. J. Whelan stated that the 36 inch subsurface storm water pipe which has an inlet/manhole north of the E6 cell (Photograph 3) was not in fact designed to divert storm water run-on. J. Whelan explained that the 36 inch subsurface pipe was a drainage pipe for storm water which fell directly on the E6 cell. When asked to clarify, J. Whelan reiterated that the 36 inch subsurface pipe inlet located north of the E6 cell was not designed to handle storm water run-on. J. Whelan confirmed that the 36 inch subsurface storm water drainage pipe was designed only to manage storm water that fell on the E6 cell.

3) J. Whelan stated that on December 19, 2010, the Landfill started to pump the storm water which had

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accumulated in the E6 cell and the area immediately south of the E6 cell to the Landfill's detention basin. J. Whelan stated that the Landfill's detention basin discharges to near shore State waters at a shoreline outfall located southwest of the Landfill.

4) ☐ J. Whelan stated that he did not believe that the storm water accumulated in the E6 cell on December 19, 2010, was leachate or potentially contaminated. J. Whelan stated that on December 19, 2010, he asked for J. Lottig's opinion on whether the storm water that had accumulated in the E6 cell was leachate and that J. Lottig did not believe that it was. J. Whelan stated that after conferring with J. Lottig on December 19, 2010, the decision to discharge from the E6 cell was made.

5) ☐ J. Whelan gave two (2) reasons as to why he did not believe that the storm water that had accumulated in the E6 cell on December 19, 2010 was leachate. First, J. Whelan stated that he did not believe that the storm water that had accumulated in the E6 cell was leachate because he didn't feel that the storm water had a long enough "residence" time in contact with solid waste which may have been present in the E6 cell. Second, J. Whelan stated that there were no areas where the E6 cell had been exposed below the high water mark of the accumulated storm water. During the inspection of the Landfill on December 23, 2010 conducted by the DOH-CWB (Investigation Report #s PA0991 and 0991A), evidence of exposed solid waste and damaged waste cells below the high water mark were documented.

6) ☐ It is unclear as to how J. Whelan would have known the integrity of the E6 cell below the high water mark of the accumulated storm water would have been at the time of discharge. Further, a "residence" time requirement is not used to determine whether storm water which has passed through solid waste is or is not leachate by regulatory definition.

7) ☐ J. Whelan stated that the E6 cell was flooded by storm water run-on twice in December 2010. J. Whelan stated that on December 18-19, 2010, the E6 cell flooded with storm water but was pumped down between December 19, 2010, and December 23, 2010. J. Whelan stated that the pumped water discharged to the Landfill's detention basin which discharges to the Pacific Ocean. J. Whelan stated that due to the rain event on December 27-28, 2010, the E6 cell flooded for the second time in a month. J. Whelan stated that since the Landfill was made aware that discharges of the water were violations of Water Pollution rules and regulations, the Landfill did not discharge the contents of the E6 cell to State waters from the second flooding event. J. Whelan stated that the Landfill instead pumped the impounded water into pumper trucks for hauling to the Waianae Wastewater Treatment Plant for disposal.

In conclusion, it appears that the Landfill owners and operators, including the CCH and Waste Management made a business decision when it was decided to operate within the E6 cell without the ability to divert storm water run-on from entering the E6 cell. Regarding the discharges from the E6 cell to State waters which occurred on December 19, 2010 to December 23, 2010, it is unclear as to why responsible person(s) discharged the storm water which had accumulated in the E6 cell and had come into extended contact with solid waste. Based on findings from the inspection, future flooding of the E6 cell is possible if the Landfill experiences another rain event as there is no effective run-on handling system in place. A contingency plan should be made as more inclement weather may be experienced by the Landfill before the construction of the storm water diversion system is completed.

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Name: Matthew Kurano
Signature: Matthew Kurano
Title: EHS
Date: Feb. 8, 2011

Name: _____
Signature: _____
Title: _____
Date: _____



Photograph # 1

Date: January 6, 2010

Observers: Matthew Kurano

Location: 92-460 Farrington Highway, Kapolei, Hawaii

Description: View of the E6 cell (Red Outline) facing north. The headwall is located towards the end of the valley (Red Arrow). The headwall was under construction at the time of the tour.



Photograph # 2

Date: January 6, 2010

Observers: Matthew Kurano

Location: 92-460 Farrington Highway, Kapolei, Hawaii

Description: With the construction of the headwall and storm water drainage system, storm water run-on would have diverted above and around the E6 cell (Red Arrow) and discharged through a large capacity "Hobas" pipe to the detention basin. The headwall (Green Arrow) is located upstream of the "Hobas" pipe.



Photograph # 3

Date: January 6, 2010

Observers: Matthew Kurano

Location: 92-460 Farrington Highway, Kapolei, Hawaii

Description: View of the E6 cell facing north. J. Whelan indicated that the subsurface storm drain pipe inlet (Red Arrow) was not designed to address possible storm water run-on. J. Whelan stated that the area south of the main part of the E6 cell (Green Arrow) where storm water accumulated was not part of the E6 cell. It is unclear as to why J. Whelan indicated that the area immediately south of the E6 cell was not in fact part of the E6 cell when the same area had been identified as part of the E6 cell by J. Lottig during previous inspections.

I certify that the three (3) attached photos described above were taken by the undersigned and are a true, accurate, and unaltered representation of what was observed on January 6, 2011 at the Waimanalo Gulch Sanitary Landfill, 92-460 Farrington Highway, Kapolei, Hawaii.



Matthew R. Kurano

Feb 8, 2011

Date